

**Claims**

1. Method for in vitro diagnosis of endometriosis, characterized in that the amount of gene product of at least one gene from the group that consists of fibronectin, insulin-like growth factor binding protein-2, transmembrane receptor PTK7, platelet-derived growth factor receptor alpha, collagen type XVIII alpha 1, subtilisin-like protein (PACE4), laminin M chain (merosin), elastin, collagen type IV alpha 2, p27 interferon alpha-inducible gene, reticulocalbin, aldehyde dehydrogenase 6, gravin, nidogen and phospholipase C epsilon is determined in a patient sample and is compared to the amount of this gene product in a control sample, whereby a smaller amount of this gene product indicates the presence of an endometriosis.

2. Use of antibodies against one or more proteins coded by genes from the group that consists of fibronectin, insulin-like growth factor binding protein-2, transmembrane receptor PTK7, platelet-derived growth factor receptor alpha, collagen type XVIII alpha 1, subtilisin-like protein (PACE4), laminin M chain (merosin), elastin, collagen type IV alpha 2, p27 interferon alpha-inducible gene, reticulocalbin, aldehyde dehydrogenase 6, gravin, nidogen and phospholipase C epsilon or against parts of the polypeptide or the proteins for diagnosis of endometriosis.

3. DNA chip, wherein at least one oligonucleotide that comprises a partial sequence of a DNA that is selected from the group that consists of fibronectin, insulin-like growth factor binding protein-2, transmembrane receptor PTK7, platelet-derived growth factor receptor alpha, collagen type XVIII alpha 1,

subtilisin-like protein (PACE4), laminin M chain (merosin), elastin, collagen type IV alpha 2, p27 interferon alpha-inducible gene, reticulocalbin, aldehyde dehydrogenase 6, gravin, nidogen and phospholipase C epsilon or their complementary sequences, is bonded to the chip.

4. Use of a DNA chip according to claim 3 for diagnosis of endometriosis.